

IT IS CLAIMED:

1. A method of decreasing the PGE2:PGF2 α ratio and regulating the zinc:cadmium ratio in the body fluids of a human which comprises administering to the human an amount of a pharmaceutically acceptable and bioavailable cadmium salt sufficient to lower the concentration of PGE2 and to regulate the concentration of zinc in the human's body fluids.

2. The method of claim 1, wherein said cadmium salt is administered in a series of daily doses at dose levels of about 0.025 mg to about 2 mg per day.

3. The method of claim 1, wherein said cadmium salt is administered orally, parenterally, or by inhalation.

4. The method of claim 1, wherein said cadmium salt comprises the sulfate, nitrate, chloride or acetate cadmium salt.

5. The method of claim 1, wherein said administration of said cadmium salt results in a lowered concentration of zinc in said body fluids.

6. The method of claim 1, wherein said cadmium salt is administered in combination with at least one estrogen-containing composition.

7. The method of claim 6, wherein the estrogen-containing composition comprises a conjugated estrogen or a mixture of conjugated estrogens.

8. The method of claim 6, wherein the estrogen-containing composition is administered at a level of about 0.1 mg to about 0.5 mg per day.

9. The method of claim 1, wherein said cadmium salt is administered in combination with at least one protease inhibitor.

10. The method of claim 9, wherein the protease inhibitor comprises indinavir sulfate, ritonavir, invirase or nelfinavir mesylate.

11. The method of claim 9, wherein the protease inhibitor is administered at a level of about 600 mg to about 2400 mg per day.

12. A method of regulating the concentration of zinc-containing and PGE2-dependent matrix metalloproteinases in the body fluids of a human which comprises administering to said human one or more pharmaceutically acceptable and bioavailable cadmium salts in an amount sufficient to regulate the concentration of PGE2 and the concentration of zinc in the body fluids of the human.

13. The method of claim 12, wherein said cadmium salt administration decreases said concentration of PGE2.

14. The method of claim 12, wherein said cadmium salt administration decreases said concentration of zinc in said human's urine, seminal plasma or red blood cells.

15. The method of claim 12, wherein said cadmium salt is administered in a series of daily doses at dose levels of about 0.025 mg to about 2 mg per day.

16. The method of claim 12, wherein said cadmium salt is administered orally, parenterally or by inhalation.

17. A method of regulating the concentration of zinc in body fluids and tissues of a human which comprises administering to a human suffering from unregulated levels of zinc in his body fluids and tissues a bioavailable and physiologically acceptable cadmium salt in a dosage regimen sufficient to minimize deviations in said zinc levels outside of normal ranges.

18. The method of claim 17, wherein said human has an elevated systemic level of zinc and said cadmium salt administration decreases said systemic zinc concentration.

19. The method of claim 19, wherein said elevated systemic level of zinc is at least about 15% above normal.

20. A method of balancing the concentration of cadmium in body fluids and tissues of a human which comprises

administering to a human suffering from unbalanced levels of cadmium in his body fluids and tissues a bioavailable and physiologically acceptable cadmium salt in a dosage regimen sufficient to balance said cadmium concentration.

21. The method of claim 19, wherein said unbalanced levels of cadmium are at least about 15% below normal.

22. The method of claim 20, wherein said unbalanced levels of cadmium are at least about 20% below normal.

23. A method in accordance with claim 17 or 20, wherein said cadmium salt is administered in a series of daily doses at dose levels of about 0.025 mg to about 2 mg per day.

24. A method in accordance with claim 17 or 20, wherein said cadmium salt is administered orally, parenterally or by inhalation.

25. The method of claim 17 or 20, wherein said cadmium salt comprises the sulfate, nitrate, chloride or acetate cadmium salt.

26. A method of screening a person for an indication of or a risk of developing a disease associated with a cadmium deficiency which comprises measuring the level of cadmium in a sample of body fluid obtained from said person and determining whether said person is cadmium deficient.

27. The method of claim 26, wherein said person is cadmium deficient if said level of cadmium in said sample is at least about 15% below normal.

28. The method of claim 26, wherein said body fluid comprises urine or seminal plasma .

29. The method of claim 26, wherein said body fluid is urine.

30. The method of claim 26, wherein a component of said body fluid is assayed.

31. The method of claim 30, wherein said component is red blood cells.

40. The method of claim 39, wherein said cadmium salt is administered in combination with an estrogen.

41. The method of claim 40, wherein said estrogen comprises a conjugated estrogen or a mixture of conjugated estrogens.

42. A method for preventing or slowing the progress of a disease in a human, wherein said disease is associated with above-normal systemic levels of zinc and said human has above normal systemic levels of zinc, which comprises administering to said human a pharmaceutically acceptable and bioavailable cadmium salt in an amount sufficient to regulate the human's systemic level of zinc.

43. A method for preventing or delaying the onset of osteoporosis in a human at risk of developing osteoporosis which comprises administering to the human a pharmaceutically acceptable and bioavailable cadmium salt in an amount sufficient to regulate the concentration of zinc in the body fluids and tissues of said human.

44. A method for preventing or delaying the onset of diabetes in a human at risk of developing diabetes which comprises administering to the human a pharmaceutically acceptable and bioavailable cadmium salt in an amount sufficient to regulate the concentration of zinc in the body fluids and tissues of said human.

45. A method for preventing or delaying the onset of hypertension in a human at risk of developing hypertension which comprises administering to the human a pharmaceutically acceptable and bioavailable cadmium salt in an amount sufficient to regulate the concentration of zinc in the body fluids and tissues of said human.

46. A method for preventing or delaying the onset of Alzheimer's disease in a human at risk of developing Alzheimer's disease which comprises administering to the human a pharmaceutically acceptable and bioavailable cadmium

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